

## Painful Clubbing Revealing a Bone Tumor Cell Giant

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### Abstract

Giant cell bone tumors are relatively rare, with predominance in young adults and a predilection for epiphyses and metaphysis of long bones. The clinic is nonspecific but the radiological and histological characteristics allow the diagnostic confirmation. In view of their possible metastatic and particularly pulmonary power, these tumors are located on the malignant side of benign tumors. We report a case of digital clubbing having revealed a giant cell tumor.

**Keywords:** Painful clubbing; Bone tumors; Giant cell tumors

### Introduction

The nail is a keratinized skin appendage, endowed with several roles. It is intimately linked to the periosteum of the distal phalanx as a tire and a rim. All abnormal tissue under the nail is associated with a deformation of the nail and vice versa all the deformations and/or nail malformations must systematically seek a pathology underlying structures particularly bone. We present a case of a painful clubbing that revealed a bone giant cell.

### Case Report

A 20-year-old man, with no notable medical history, victim of unguinal trauma of the 5<sup>th</sup> left finger, two years ago. Consulted for a digital clubbing with a painful tumefaction of the third phalanx (Figure 1). The X-ray examination revealed multiple lytic images, distortion of the distal phalanx, a periosteal thinning without soft tissue involvement (Figure 2). The clinical and radiological aspects favored a giant cell bone tumor. The patient was referred to a trauma department where he had the benefit of histological confirmation by bone biopsy followed by biopsy curettage. The extension assessment, especially pulmonary, was normal and the evolution was favourable.



Figure 1: Painful clubbing of fifth finger left.



Figure 2: Multiple lytic images, distortion of the distal phalanx, a periosteal thinning without soft tissue involvement.

### Discussion

Giant cell tumors account for 4-5% of primary bone tumors and often occur in young adults, with a peak in the third decade and a seat of choice in epiphyseal and metaphyseal long bones in 90% of cases [1,2].

Clinically, it can be revealed in early and late by pain by swelling, pathological fracture, a limitation of range of motion or rarely with lung metastases [1,2].

Conventional radiology shows a geographical osteolysis, eccentric, with soft edges and lacking sclerotic rim, a blowhole or periosteal cortical and sometimes pseudo-partitions inside the tumor. The objective CT same density as soft tissue calcifications No, sometimes cystic lesions and allows a better appreciation of cortical involvement. MRI shows non-specific signal intense hypo or *via* T1, intermediate or intense in T2 and heterogeneous (hemorrhage or necrosis areas). The couple scintigraphy/PET objective frank uptake in the periphery

without correlation between the intensity of fixation and aggressiveness of the tumor.

The histology is characteristic to confirm the diagnosis by showing a double cell contingent made giant cells and mononuclear elements [3].

Main differential diagnosis are chondroblastoma and chondrosarcoma, the aneurysmal bone cyst, rich in giant cell osteosarcoma, the repair of giant cell granuloma and brown tumors of hyperparathyroidism [1-4].

Surgical treatment is based on an extensive curettage or block resection.

The evolution is marked by frequent recurrences less often, especially pulmonary metastases [1-4].

## Conclusion

Giant cell tumors are placed for their aggressive and unpredictable behavior and risk metastatic malignant side of benign tumors, or of

interest to ask systematically before any nail malformation bone radiography.

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